

PCT10

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/10/009,456

DATE: 01/14/2002  
TIME: 07:51:06

Input Set : A:\USSEQLIST.TXT  
Output Set: N:\CRF3\01142002\J009456.raw

4 <110> APPLICANT: BROWN, JAMES R.  
5 CHALKER, ALISON F.  
6 DU, WENSHANG  
7 KATZ, LISA K.  
8 MAZZULLA, MARIE JEAN  
9 PAYNE, DAVID J.  
10 TRAINI, CHRISTOPHER M.  
12 <120> TITLE OF INVENTION: Methods Using Mechanisms of Action of  
13 AroA  
15 <130> FILE REFERENCE: GM50053  
c-17 <140> CURRENT APPLICATION NUMBER: US/10/009,456  
18 <141> CURRENT FILING DATE: 2001-11-05  
20 <150> PRIOR APPLICATION NUMBER: PCT/US00/12251  
21 <151> PRIOR FILING DATE: 2000-05-04  
23 <150> PRIOR APPLICATION NUMBER: 60/133,070  
24 <151> PRIOR FILING DATE: 1999-05-07  
26 <160> NUMBER OF SEQ ID NOS: 4  
28 <170> SOFTWARE: FastSEQ for Windows Version 4.0  
30 <210> SEQ ID NO: 1  
31 <211> LENGTH: 1284  
32 <212> TYPE: DNA  
33 <213> ORGANISM: Streptococcus pneumoniae  
35 <400> SEQUENCE: 1  
36 atgaaaactaa aaacaaacat tcgccattta catggtatta tccgcgtccc aggtgacaag 60  
37 tctatcagcc accgttccat tatctttgga agttttggctg agggtgagac caaggtttat 120  
38 gatattctgc gaggtgaaga cgttcttcg accatgcagg ttttcgtga ctttggtgtt 180  
39 gaaattgagg ataaaagatgg gtttattacc gttcaagggtg taggcattgc tggctaaaa 240  
40 gcgcgcgcaaa atgccttaa tatggaaat tctggcacct cgattcqctt gatttcagg 300  
41 qtccttgcgt gtgcagattt cgaagtagag atgtttggag atgatagtc ttccaaacgt 360  
42 cctatggacc gtgtgaccct tccactgaaa aaaatggcg tcagcatctc agggcaaact 420  
43 gaacgagact tgcctccct tcgctaaaa gggacgaaaa acctaagacc tattcattat 480  
44 gagttgccaa ttgcctctgc ccaagtcaag tcagcattga tgtttgcagc cttacaagct 540  
45 aaaaaaaaaa cagttattat cggaaaaagag tacaccgtt atcataactga agatatgtt 600  
46 caacaatttg gtggtcattt aagtgtggat ggtaaaaaaa tcacagtcca agggccacaa 660  
47 aaattgacag gacagaaggt ggtcgatcca ggagatattt ccagtgcagc ctttgggtt 720  
48 gtcgcaggtt tgattgtcc aaattctcg ttagtgcgtc agaatgtgg gataaacgaa 780  
49 actcgacccg gtattattga tgcattcgat gccatgggtg gaaaattgaa aataactgaa 840  
50 atcgatcccg tcgctaaatc tgcaacctt attgttgagt cttctgactt gaaaggaaca 900  
51 gagatttgtt ggcgtttgat tccacgtttt attgatgaat tgcctattat tgccctactt 960  
52 gcgacccaaag cccaaagggtt aacagtttac aaggatgtg aggagctcaa ggtcaaggaa 1020  
53 acagaccgtt ttcaggttgc ggcagacgcc taaaatagta tgggagcaga tattactcct 1080  
54 acggcagatg ggtatgattt caaaggaaaa tcagctttc acgggtgttagt agtcaatacg 1140  
55 ttgggtgacc accgtatcg catgtgaca gctatcgac ccctattgtt tgcaagatgg 1200  
56 gaggtggacc ttgaccgtgc agaagccatc aataccagct atccttagtt ctggatgat 1260  
57 ttggagagct tgattcatgg cttaa 1284  
59 <210> SEQ ID NO: 2  
60 <211> LENGTH: 427

ENTERED

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61 <212> TYPE: PRT  
62 <213> ORGANISM: Streptococcus pneumoniae  
64 <400> SEQUENCE: 2  
65 Met Lys Leu Lys Thr Asn Ile Arg His Leu His Gly Ile Ile Arg Val  
66 1 5 10 15  
67 Pro Gly Asp Lys Ser Ile Ser His Arg Ser Ile Ile Phe Gly Ser Leu  
68 20 25 30  
69 Ala Glu Gly Glu Thr Lys Val Tyr Asp Ile Leu Arg Gly Glu Asp Val  
70 35 40 45  
71 Leu Ser Thr Met Gln Val Phe Arg Asp Leu Gly Val Glu Ile Glu Asp  
72 50 55 60  
73 Lys Asp Gly Val Ile Thr Val Gln Gly Val Gly Met Ala Gly Leu Lys  
74 65 70 75 80  
75 Ala Pro Gln Asn Ala Leu Asn Met Gly Asn Ser Gly Thr Ser Ile Arg  
76 85 90 95  
77 Leu Ile Ser Gly Val Leu Ala Gly Ala Asp Phe Glu Val Glu Met Phe  
78 100 105 110  
79 Gly Asp Asp Ser Leu Ser Lys Arg Pro Met Asp Arg Val Thr Leu Pro  
80 115 120 125  
81 Leu Lys Lys Met Gly Val Ser Ile Ser Gly Gln Thr Glu Arg Asp Leu  
82 130 135 140  
83 Pro Pro Leu Arg Leu Lys Gly Thr Lys Asn Leu Arg Pro Ile His Tyr  
84 145 150 155 160  
85 Glu Leu Pro Ile Ala Ser Ala Gln Val Lys Ser Ala Leu Met Phe Ala  
86 165 170 175  
87 Ala Leu Gln Ala Lys Gly Glu Ser Val Ile Ile Glu Lys Glu Tyr Thr  
88 180 185 190  
89 Arg Asn His Thr Glu Asp Met Leu Gln Gln Phe Gly Gly His Leu Ser  
90 195 200 205  
91 Val Asp Gly Lys Lys Ile Thr Val Gln Gly Pro Gln Lys Leu Thr Gly  
92 210 215 220  
93 Gln Lys Val Val Val Pro Gly Asp Ile Ser Ser Ala Ala Phe Trp Leu  
94 225 230 235 240  
95 Val Ala Gly Leu Ile Ala Pro Asn Ser Arg Leu Val Leu Gln Asn Val  
96 245 250 255  
97 Gly Ile Asn Glu Thr Arg Thr Gly Ile Ile Asp Val Ile Arg Ala Met  
98 260 265 270  
99 Gly Gly Lys Leu Glu Ile Thr Glu Ile Asp Pro Val Ala Lys Ser Ala  
100 275 280 285  
101 Thr Leu Ile Val Glu Ser Ser Asp Leu Lys Gly Thr Glu Ile Cys Gly  
102 290 295 300  
103 Ala Leu Ile Pro Arg Leu Ile Asp Glu Leu Pro Ile Ile Ala Leu Leu  
104 305 310 315 320  
105 Ala Thr Gln Ala Gln Gly Val Thr Val Ile Lys Asp Ala Glu Glu Leu  
106 325 330 335  
107 Lys Val Lys Glu Thr Asp Arg Ile Gln Val Val Ala Asp Ala Leu Asn  
108 340 345 350  
109 Ser Met Gly Ala Asp Ile Thr Pro Thr Ala Asp Gly Met Ile Ile Lys  
110 355 360 365

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111 Gly Lys Ser Ala Leu His Gly Ala Arg Val Asn Thr Phe Gly Asp His  
112 370 375 380  
113 Arg Ile Gly Met Met Thr Ala Ile Ala Ala Leu Leu Val Ala Asp Gly  
114 385 390 395 400  
115 Glu Val Glu Leu Asp Arg Ala Glu Ala Ile Asn Thr Ser Tyr Pro Ser  
116 405 410 415  
117 Phe Phe Asp Asp Leu Glu Ser Leu Ile His Gly  
118 420 425  
121 <210> SEQ ID NO: 3  
122 <211> LENGTH: 1245  
123 <212> TYPE: DNA  
124 <213> ORGANISM: Streptococcus pneumoniae  
126 <220> FEATURE:  
127 <221> NAME/KEY: unsure  
128 <222> LOCATION: (482)(483)(484)(485)(486)(487)(488)(489)(490)(491)  
129 <222> LOCATION: (492)(493)(494)(495)(496)(497)(498)(499)  
130 <223> OTHER INFORMATION: Where n can be represented by a, c, t, or g  
132 <400> SEQUENCE: 3  
133 aqttgtatcg tcccaggta caagtctatc agccacggtt ccattatctt tggaagtttg 60  
134 gctgagggtg agaccaaggt ttatgtatatt ctgcggaggta aacacgttct ttgcaccatg 120  
135 cagtttttc gtgaccttgg tggtaaatt gaggataaaag atggggttat taccgttcaa 180  
136 ggtgttagqca tggctggctt aaaagcggcg caaaatgccc ttaatatggg aaattctggc 240  
137 acctcgatttc gcctgttattc aggtgtcattt gctgggtcag atttcgaatg agagatgttt 300  
138 ggagatgata gtcttccaa acgtctatg gaccgtgtga cccttccact gaaaaaaatg 360  
139 ggctgtcagca tctcaggggca aactgaacgaa gacttgcctc cccttcgtt taaaaggac 420  
140 gaaaaaacta agacattttc attatgatgtt gccaatttgc tctgccaag tcaagtgc 480  
141 *W* cnnnnnnnnnnnnnnnc taagggggag tcagttatta tcgaaaaaga gtacaccgt 540  
142 aatcatactg aagatatgtt gcaacaattt ggtggtcatt taagtgtgga tggtaagaaa 600  
143 atcacagtc aagggccaca aaaattgaca ggacagaagg tggtcgttacc aggagatatt 660  
144 tccagtgcag cctttgggtt agtcgcaggat ttgattgctc caaattctcg tctagtgtcg 720  
145 cagaatgtgg ggataaacgaa aactcgccacc ggtattattt atgtcatttc tgccatgggt 780  
146 ggaaaaatgg aaataactga aatcgatcca gtcgctaat ctgcaacctt gattgttgag 840  
147 tcttctgact taaaaggaac agagatttgtt ggcgtttga ttccacgtt gattgtatgaa 900  
148 ttgccttattt ttgccttact tgcgaccCAA gccaagggtg taacagtat caaggatgt 960  
149 gaggagctca aggtcaagga aacagacgtt attcagggtt tggcagacgc cttaaatagt 1020  
150 atgggagcag atattactcc tacggcagat gggatgatcca tcaaaggaaa atcagcttt 1080  
151 cacgggtgcta gagtcaatac gtttgggtac caccgtatcg gcatgtatgac agctatcgca 1140  
152 qccctattgg ttgcagatgg agaggtggag ctggaccgtg cagaaggccat caataaccagc 1200  
153 tatccttagtt tctttgtatc ttggagagc ttgattcatg gctaa 1245  
155 <210> SEQ ID NO: 4  
156 <211> LENGTH: 415  
157 <212> TYPE: PRT  
158 <213> ORGANISM: Streptococcus pneumoniae  
160 <220> FEATURE:  
161 <221> NAME/KEY: unsure  
162 <222> LOCATION: (149)((161)(162)(163)(164)(165)(166)(167)(168)  
163 <223> OTHER INFORMATION: Where Xaa can be represented by any one of the twenty  
naturally  
164 <223> OTHER INFORMATION: occurring proteins  
166 <400> SEQUENCE: 4

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167 Ser Leu Ile Val Pro Gly Asp Lys Ser Ile Ser His Arg Ser Ile Ile  
168 1 5 10 15  
169 Phe Gly Ser Leu Ala Glu Gly Glu Thr Lys Val Tyr Asp Ile Leu Arg  
170 20 25 30  
171 Gly Glu His Val Leu Ser Thr Met Gln Val Phe Arg Asp Leu Gly Val  
172 35 40 45  
173 Glu Ile Glu Asp Lys Asp Gly Val Ile Thr Val Gln Gly Val Gly Met  
174 50 55 60  
175 Ala Gly Leu Lys Ala Pro Gln Asn Ala Leu Asn Met Gly Asn Ser Gly  
176 65 70 75 80  
177 Thr Ser Ile Arg Leu Ile Ser Gly Val Leu Ala Gly Ala Asp Phe Glu  
178 85 90 95  
179 Val Glu Met Phe Gly Asp Asp Ser Leu Ser Lys Arg Pro Met Asp Arg  
180 100 105 110  
181 Val Thr Leu Pro Leu Lys Lys Met Gly Val Ser Ile Ser Gly Gln Thr  
182 115 120 125  
183 Glu Arg Asp Leu Pro Pro Leu Arg Phe Lys Arg Asp Glu Lys Pro Lys  
184 130 135 140  
185 Thr Tyr Ser Leu Xaa Val Ala Asn Cys Leu Cys Pro Ser Gln Val Ser  
186 145 150 155 160  
W--> 187 Xaa Xaa Xaa Xaa Xaa Xaa Lys Gly Glu Ser Val Ile Ile Glu  
188 165 170 175  
189 Lys Glu Tyr Thr Arg Asn His Thr Glu Asp Met Leu Gln Gln Phe Gly  
190 180 185 190  
191 Gly His Leu Ser Val Asp Gly Lys Lys Ile Thr Val Gln Gly Pro Gln  
192 195 200 205  
193 Lys Leu Thr Gly Gln Lys Val Val Val Pro Gly Asp Ile Ser Ser Ala  
194 210 215 220  
195 Ala Phe Trp Leu Val Ala Gly Leu Ile Ala Pro Asn Ser Arg Leu Val  
196 225 230 235 240  
197 Leu Gln Asn Val Gly Ile Asn Glu Thr Arg Thr Gly Ile Ile Asp Val  
198 245 250 255  
199 Ile Arg Ala Met Gly Gly Lys Leu Glu Ile Thr Glu Ile Asp Pro Val  
200 260 265 270  
201 Ala Lys Ser Ala Thr Leu Ile Val Glu Ser Ser Asp Leu Lys Gly Thr  
202 275 280 285  
203 Glu Ile Cys Gly Ala Leu Ile Pro Arg Leu Ile Asp Glu Leu Pro Ile  
204 290 295 300  
205 Ile Ala Leu Ala Thr Gln Ala Gln Gly Val Thr Val Ile Lys Asp  
206 305 310 315 320  
207 Ala Glu Glu Leu Lys Val Lys Glu Thr Asp Arg Ile Gln Val Val Ala  
208 325 330 335  
209 Asp Ala Leu Asn Ser Met Gly Ala Asp Ile Thr Pro Thr Ala Asp Gly  
210 340 345 350  
211 Met Ile Ile Lys Gly Lys Ser Ala Leu His Gly Ala Arg Val Asn Thr  
212 355 360 365  
213 Phe Gly Asp His Arg Ile Gly Met Met Thr Ala Ile Ala Ala Leu Leu  
214 370 375 380  
215 Val Ala Asp Gly Glu Val Glu Leu Asp Arg Ala Glu Ala Ile Asn Thr

RAW SEQUENCE LISTING  
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DATE: 01/14/2002  
TIME: 07:51:07

Input Set : A:\USSEQLIST.TXT  
Output Set: N:\CRF3\01142002\J009456.raw

216 385                    390                    395                    400  
217 Ser Tyr Pro Ser Phe Phe Asp Asp Leu Glu Ser Leu Ile His Gly  
                        405                          410                          415  
218

**VERIFICATION SUMMARY**

PATENT APPLICATION: US/10/009,456

DATE: 01/14/2002

TIME: 07:51:08

Input Set : A:\USSEQLIST.TXT

Output Set: N:\CRF3\01142002\J009456.raw

L:17 M:270 C: Current Application Number differs, Replaced Current Application Number

L:141 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3

L:185 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4

L:187 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4